Claims

1. Constructional element intended for cogged joining, comprising two structural elements in the form of side walls each of which being based on a single wooden or wood-like board (1) with an inner coating of a plastic material (3),
characterized in that the inside of each board (1) is furnished with ribs (5) that make the side walls dimensionally stable, said ribs (5) being attached to the board (1) by means of the plastic material (3), while the constructional element also comprises attachment means (8) that hold said structural elements at a predetermined distance from one another.

2. Constructional element as claimed in claim 1, **characterized in** that said plastic material (3) is polyethylene, polypropylene or PVC.

3. Constructional element as claimed in claim 1, **characterized in** that said plastic material (3) is a thermosetting plastic, preferably a glass fibre reinforced thermosetting plastic.

4. Constructional element as claimed in any one of the preceding claims,
characterized in that said ribs (5) are wooden ribs.

5. Constructional element as claimed in any one of the preceding claims,
characterized in that said ribs (5) are made in steel, a synthetic material or a composite material.

6. Constructional element as claimed in any one of the preceding claims,
characterized in that the structural elements that constitute the side walls of the constructional element are curved across their longitudinal direction with a convex outer surface.

7. Constructional element as claimed in any one of the preceding claims,
characterized in that one or more of the boards forming structural elements are furnished with grooves (2) on their inner side.

8. Constructional element as claimed in any one of the preceding claims,
characterized in that the means to hold the structural elements in a fixed mutual distance

from one another comprise evenly arranged pairs of attachment means (8) attached a one of their sides to a number of all to all ribs (5) of each structural element, and at the opposite side to one for the pair common pipe element (7) that extends vertically through the entire constructional element.

9. Constructional element as claimed in any one of the preceding claims, **characterized in** that at the end or ends facing a cogged joint the constructional element is provided with a transition-element attached in a diffusion proof manner to the plastic material (3), said transition-element having a central opening with an inner shape that corresponds to the outer shape of a cogging element or splicing element.

10. Constructional element as claimed in any one of the preceding claims, **characterized in** that at the end or ends facing a door frame or a window frame the constructional element is provided with an end.-piece that is attached in a diffusion proof manner to the plastic material (3).

11. Constructional element as claimed in any one of the preceding claims, **characterized in** that longitudinal slits between the uppermost and lowermost edges of said side walls are sealed in a diffusion proof manner with tape.

12. Method for the manufacture of a constructional element intended for cogged joining, **characterized in** that the method comprises

i) manufacturing separate structural elements that form side walls of the constructional element in a process where:

a) pre-dimensioned wooden or wood-like boards are on one of their sides coated with a layer of a plastic material and optionally furnished with longitudinal flanges of plastic material along both sides of the boards,

b) a number of ribs with a size and dimension adapted to the boards are arranged at certain intervals along the longitudinal direction of the boards and attached to the boards with said plastic material in a process of injection moulding, "speilsveising" or pressing, after which

c) attachment means are attached in pairs at both ends of at least some of said ribs, whereby the side of the attachment means that is faced away from each respective rib is adapted to be attached to a certain pipe element, and

ii) placing together two and two of such structural elements in pairs and attach them to one another by attaching each pair of attachment means to a respective pipe element that thereby forms a bridging connection between each respective pair of structural elements.

13. Method as claimed in claim 12, **characterized in** that the boards prior to being coated with a plastic material are furnished with grooves on the side to which the plastic material is to be coated.

14. Method as claimed in claim 12 or 13, **characterized in** that said plastic material is a thermoplastic material applied by extrusion.

15. Method as claimed in claim 12 or 13, **characterized in** that said plastic material is a thermosetting plastic material, preferably reinforced with glass fibre, which is applied by means of a press shape mould.

16. Method as claimed in any one of claims 12-15, **characterized in** that each board prior to being coated with a plastic material is bent (curved) across its longitudinal axis to a concave inside and a convex outside and that each rib is provided with a correspondingly curved surface before it is attached to the concave side of the board.

17. Method as claimed in any one of claims 12-16, **characterized in** that the method comprises the additional steps of:

iii) attaching particularly adapted transition-elements or end-pieces to each of the two ends of each constructional element,

iv) closing the longitudinal slit along the underside of each constructional element with a for that purpose particularly adapted tape or the like,

v) filling the otherwise open void between between the side walls of each constructional element with a therefore suited insulating material,

vi) closing the longitudinal slit along the upper side of each constructional element with a for that purpose particularly adapted tape or the like, and

vii) attaching particularly and per se known cogging elements to the constructional elements by means of the under item iii) mentioned transition-elements where relevant.

18. Structural element for a constructional element, **characterized in** that it comprises a wooden or wood-like board (1) a diffusion proof layer of a plastic material (3) that covers one side of the board and a number of ribs (5) attached with defined intervals in the longitudinal direction of the board (1), on the same side as the plastic material (3), for making the structural element dimensionally stable.

19. Structural element as claimed in claim 18, **characterized in** that the board is provided with grooves on the side where the plastic is applied.

20. Structural element as claimed in claim 18 or 19, **characterized in** that the board is curved across its longitudinal direction such that the side covered by a plastic material is the concave side.

21. Structural element as claimed in claims 18-20, **characterized in** that the ribs (5) when having the shape of simple plate elements, are arranged mainly perpendicular to the longitudinal axis of the structural element.

22. Method for the manufacture of a structural element for a constructional element, **characterized in** that the method comprises
a) preparing wooden or wood-like boards in pre-determined dimensions,
b) coating one side of each board with a layer of a plastic material,
c) arrange a number of ribs at mutually defined intervals along the longitudinal direction of each board and attach said ribs to the boards with said plastic material in order to provide the structural element with strength and dimension stability.

23. Method as claimed in claim 22, **characterized in** that the board prior to the coating is furnished with grooves.

24. Method as claimed in claims 22-23, **characterized in** that each board prior to the treatment defined by step b) is curved cross its longitudinal direction to a concave inside and a convex outside and in such curved position fed to an extruder where the board is provided with a layer of thermoplastic material and that said ribs at the side facing the board has a curvature that corresponds to the curvature of the board.

25. Method as claimed in claims 22-23, **characterized in** that each rib is attached to one side of the board as defined by step c) in a press shape mould after having been coated on the same side with a preferably glass fibre reinforced thermosetting plastic.